

GENERAL CHARACTERISTICS



The flow switch VM.WPS is **compensated** to operate with fluids with viscosities **up to 200 cSt** with no significant changes in the calibration set.

The piston has been replaced by a particular sized disk that allows to obtain a reduced annular area of the flow passage. The flow velocity in the measuring chamber is adjusted by this element to obtain a stable movement when the viscosity changes. The combination of the two characteristics, passage area and shape of the plate, made it possible to obtain with this tool a good degree of stability of operation.

In addition a good linearity of measurement was also obtained by introducing into the wall of the cylindrical chamber some appropriate cracks that make the passage area proportional to the increase of the flow rate. The maximum deviation from linearity is equal to 10% of the measured value over the entire range of viscosity for which the instrument is designed.

- Hermetic separation between flow chamber and electric head.
- Good repeatability.
- Good insensitivity to impurities.
- Large-scale calibration.
- Microswitch output contact .



TECHNICAL DATA

Tab.1

DN	Type	P max		T max	Flow rate setting ranges		Q max		ΔP	Q max	Code	
		GR	GK		°C	l/min		l/min			Bar	Setting ranges
1/4"	VM-008	100		90	1 – 5	3 – 12	8	15	0,25		1 – 5	005
3/8"	VM-010	100		90	2 – 6	3 – 12	10	15	0,25		2 – 6	006
1/2"	VM-015	100	100	90	2 – 6	4 – 20	15	30	0,25		3 – 12	012
3/4"	VM-020	25	100	90	4 – 20	10 – 40	40	50	0,25		4 – 20	020
1"	VM-025	25	100	90	10 – 60		70		0,25		10 – 40	040
1.1/4"	VM-032	16	100	90	20 – 100		120		0,25		10 – 60	060
1.1/2"	VM-040	16	100	90	30 – 150		180		0,25		20 – 100	100
2"	VM-050	16	100	90	50 – 250		300		0,25		30 – 150	150
2.1/2"	VM-065	16		90	50 – 400		480		0,25		50 – 250	250
3"	VM-080	16		90	100 – 600		720		0,25		50 – 400	400
Setting ranges for horizontal mounting and decreasing flow											100 – 600	600

DN	Thread	Parallel UNI 228/1
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Precision	± 5% F.S.
Hysteresis	10-15% - minimum 0,6 l/min.

MATERIALS

Tab.2

Description	Code	
	GR	GK
Body	Bronze Rg5/Rg6	Stainless steel 1.4305
Piston	Brass	Stainless steel 1.4571
Piston guide	Brass	Stainless steel 1.4571
Spring	Stainless steel 1.4310	Stainless steel 1.4310
Sealing gasket	NBR	Viton
Magnet	Barium-Ferrite	Barium-Ferrite PTFE coated
Electrical head	ABS	ABS

ELECTRICAL DATA

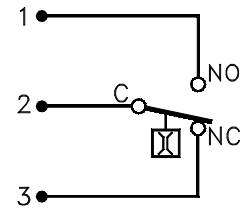
Tab.3

Description	Characteristics			
	Contact	Micro-switch	SPDT	250Vac
Electrical output	Plug		DIN 43650A	
Degree of protection	IP44		IP65	
On request				

Options							
Diode	LED	Red color integrated in the plug cap					
Voltage	Vac	230	110	48	24	12	To be specified

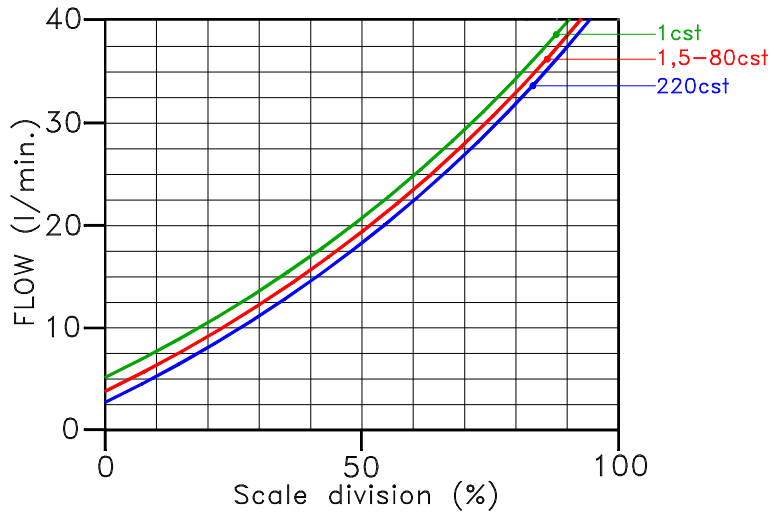
WIRING Tab.4

Description		Code
DIN 43650A Plug	Screw terminal board Cable gland PG9	0213

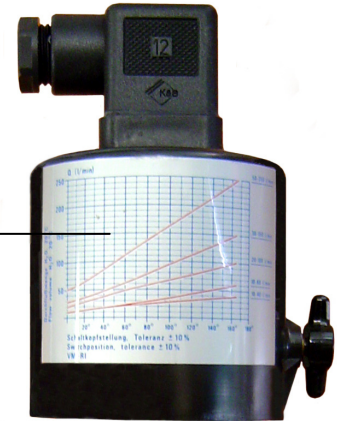


SETTINGS Tab.5

Adjustable in the field by means of the calibration graph and the large-scale graduated in mechanical degrees.

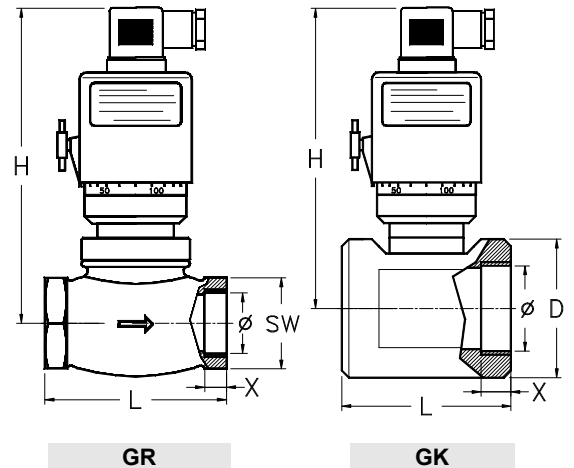


Graph of calibration



DIMENSIONS

GR						GK				
∅	H mm	L mm	SW mm	X mm	Weight Kg	H mm	L mm	D mm	X mm	Weight Kg
1/4	144	68	29	12	1,2	-	-	-	-	-
3/8	144	68	29	12	1,3	-	-	-	-	-
1/2	144	68	29	13	1,4	139	80	68	15	2,8
3/4	144	73	32	11	1,5	139	80	68	16	2,6
1	144	87	41	12	1,7	139	80	68	18	2,5
1-1/4	155	98	52	13	2,3	141	95	78	24	3,5
1-1/2	156	113	59	14	3,0	152	105	88	25	4,5
2	164	137	72	17	4,3	154	120	102	27	6,7
2-1/2	195	160	85	26	5,8	-	-	-	-	-
3	195	148	100	23	7,0	-	-	-	-	-



NOMENCLATURE

VM	025	GR	060	IP65	0213	WPS
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-	Name - Type
Tab.1	Process connection thread and dimension
Tab.2	Material
Tab.1	Measuring range
Tab.3	Degree of protection
Tab.4	Wiring
Tab.5	Suitable for viscosity up to 200 cSt